In the Claims

Please cancel claims 9 and 11.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.) (currently amended) A probe for the measurement of the oxygen activity of metal melts, in particular steel melts,

comprising a reference substance in electrically conducting contact with a measuring device;

and comprising a solid electrolyte predominantly oxygen ion conducting at high temperatures and negligibly electron conducting and separating the reference substance from the melt and having an entry surface for oxygen ions in contact with the melt,

and comprising a cover for the entry surface of the probe ready for operation wherein the cover is in the form of a foil arrangement and that the probe comprises mechanical means, which press the foil arrangement from outside into close contact with the entry surface

~~wherein the entry surface of the probe ready for operation is covered by a functional foil arrangement in close contact to the entry surface~~.

2.) (previously presented) The probe according to claim 1, wherein the foil arrangement comprises at least one foil oxidizable by the oxygen contained in the melt.

3.) (previously presented) The probe according to claim 2, wherein the foil consists of an aluminum material.

4.) (previously presented) The probe according to claim 2, wherein the foil arrangement comprises at least a further foil at least partly covering the first foil.

5.) (previously presented) The probe according to claim 4, wherein the material of the further foil when melting due to the contact with the melt enhances the wettability of the entry surface of the solid electrolyte.

6.) (previously presented) The probe according to claim 5, wherein the further foil consists of a copper material.

7.) (previously presented) The probe according to claim 1, wherein the solid electrolyte is provided in form of a material having a substantially flat end wall at the end of a refractory small tubelet and the foil arrangement extends in front of said end wall.

8.) (previously presented) The probe according to claim 1, wherein the solid electrolyte is provided in form of a small tubelet to be immersed into the melt and closed at the end to be immersed with the reference substance being located in the interior of the small tubelet and that the foil arrangement totally and tightly surrounds the outer periphery of the small tubelet.

9.) (canceled)

10.) (currently amended) The probe according to claim 1~~9~~, wherein said means comprise a binder located between the entry surface and the foil arrangement and disintegrating when in contact with the melt .

11.) (canceled)

12.) (previously presented) The probe according to claim 11, wherein said means press the foil arrangement against the entry surface over its extension.

13.) (previously presented) The probe according to claim 12, wherein said means press the foil arrangement against the entry surface in an elastic way.

14.) (previously presented) The probe according to claim 13, wherein said means comprise an elastomeric hose tightly surrounding the foil arrangement on the outer periphery of the small tubelet constituing the solid electrolyte.

15.) (previously presented) The probe according to claim 14, characterized in that the hose first has a greater diameter than the foil arrangement surrounding the small tubelet and that the hose is shrinkable in its radial diameter after being positioned longitudinally over the foil arrangement.

16.) (previously presented) The probe according to claim 15, wherein the hose is a material with a thermoactive shape memory.

17.) (previously presented) A method of producting a probe for the measurement of oxygen activity of metal melts, in particular steel melts, with the probe comprising a solid electrolyte predominantly oxygen conducting at high temperatures and negligibly electron conducting and intended to be immersed into the metal melt and having an entry surface for oxygen ions, characterized in that the entry surface is tightly covered by a functional foil arrangement; that over the foil arrangement on the entry surface an elastomeric hose is positioned longitudinally and that then the hose is shrunk onto the foil arrangement causing a radial tension leading to a close contact between the foil arrangement and the entry surface.

18.) (previously presented) The method according to claim 17, wherein the hose is a thermoactive shape memory material and the hose is heated when in position.